

REMARKS

In response to the Office Action mailed June 8, 2007, Applicants amended claims 1, 4, 15-17, 19, 21, 23, 26 and 48, and cancelled claim 13. Claims 1-12 and 14-52 are presented for examination.

Initially, Applicants note that initialed 1449 forms were not received for Information Disclosure Statements filed by Applicants on 9/14/04, 10/26/04, 10/28/04, 2/1/05, 3/10/05 and 4/15/05 (i.e., all filed before the mailing of the Office Action). According to the USPTO PAIR website, each of these Information Disclosure Statements was received by the USPTO. Accordingly, Applicants ask that the references submitted in these Information Disclosure Statements be considered by the Examiner, and such consideration be demonstrated by mailing to Applicants copies of the corresponding initialed 1449 forms.

The Examiner rejected claim 4 under 35 U.S.C. §112, second paragraph. Applicants amended claim 4 to obviate this rejection, so the rejection should be withdrawn.

The Examiner rejected claims 1-13 and 15-52 under 35 U.S.C. §102(b) as being anticipated by Nakamura, U.S. Patent No. 6,291,763 ("Nakamura"), or under 35 U.S.C. §103(a) as being unpatentable over Nakamura in view of Griffin et al., U.S. Patent No. 3,442,007 ("Griffin"), Scher et al., U.S. Patent No. 6,878,871 ("Scher") or Chapin et al., U.S. Patent No. 2,780,765 ("Chapin").¹ As amended, claims 1-13 and 15-52 cover photovoltaic cells that include a photoactive layer that includes an electron acceptor material and an electron donor material, where the electron acceptor material includes a fullerene, and the electron donor material includes a polymer. Nakamura does not disclose or suggest such photovoltaic cells, and none of Griffin, Scher or Chapin cure the infirmities of Nakamura, at least because, like Nakamura, these references do not disclose or suggest the photovoltaic cells covered by claims 1-13 and 15-52. Further, there is no suggestion to combine the references in the manner stated by the Examiner to provide such photovoltaic cells, and, even if the references were combined in the manner stated

¹ Applicants cancelled claim 13, so the rejection of this claim should be withdrawn.

by the Examiner, the result would not be the photovoltaic cells covered by these claims.

Accordingly, Applicants request reconsideration and withdrawal of these rejections.

The Examiner rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over Nakamura in view of Meissner et al., U.S. Patent No. 6,559,375 ("Meissner"). As noted above, Nakamura does not disclose a photoactive layer that includes an electron acceptor material and an electron donor material, where the electron acceptor material includes a fullerene, and the electron donor material includes a polymer, as required by claim 14. Nor is there any suggestion to modify Nakamura to provide such photovoltaic cells. To the contrary, Nakamura discloses that his photovoltaic cell provides multiple beneficial properties. (See, e.g., Nakamura, col. 2, lines 10-26 and Abstract.) After reading this, one skilled in the art would not have been motivated to modify Nakamura. Further, even if one skilled in the art would have somehow been motivated to modify Nakamura, that person would not have considered Meissner, at least because, as would be understood by one skilled in the art, Nakamura and Meissner disclose very different types of photovoltaic cells that contain very different materials in their photoactive layers. Thus, there is no suggestion to combine Nakamura and Meissner in the manner stated by the Examiner to provide the photovoltaic cells covered by claim 14, and Applicants request reconsideration and withdrawal of this rejection.

The Examiner rejected claims 1-13 and 15-52 under 35 U.S.C. §102(b) as being anticipated by Scher, or under 35 U.S.C. §103(a) as being unpatentable over Nakamura in view of Griffin, Nakamura or Chapin.² As amended, claims 1-13 and 15-52 cover photovoltaic cells that include a photoactive layer that includes an electron acceptor material and an electron donor material, where the electron acceptor material includes a fullerene, and the electron donor material includes a polymer. Scher does not disclose or suggest such photovoltaic cells, and none of Griffin, Nakamura or Chapin cure the infirmities of Scher, at least because, like Scher, these references do not disclose or suggest the photovoltaic cells covered by claims 1-13 and 15-52. Further, there is no suggestion to combine the references in the manner stated by the Examiner to provide such photovoltaic cells, and, even if the references were combined in the

² Applicants cancelled claim 13, so the rejection of this claim should be withdrawn.

manner stated by the Examiner, the result would not be the photovoltaic cells covered by these claims. Accordingly, Applicants request reconsideration and withdrawal of the rejections of claims 1-13 and 15-52 under 35 U.S.C. §103(a).

The Examiner rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over Scher in view of Meissner. Scher does not disclose or suggest a photoactive layer that includes an electron acceptor material and an electron donor material, where the electron acceptor material includes a fullerene, and the electron donor material includes a polymer, as required by claim 14. Rather, when it comes to the photoactive material in his photovoltaic cells, Scher is focused on using nanocomposite materials as his electron acceptor materials (see, e.g., Scher col. 2, line 25-col. 10, line 43, col. 15, line 39-col. 16, line 12 and Abstract), and one skilled in the art would have clearly appreciated this fact. After reading this, one skilled in the art would not have been motivated to modify the photoactive layer of Scher's photovoltaic cell by incorporating therein Meissner's fullerene. Thus, there is no suggestion to combine Scher and Meissner in the manner stated by the Examiner to provide the photovoltaic cells covered by claim 14, and Applicants request reconsideration and withdrawal of this rejection.

The Examiner rejected each of claims 1-13 and 15-25 under the judicial doctrine of obviousness-type double patenting on one or more bases. Applicants ask that these rejections be held in abeyance at this time.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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